

Table A-10. Company and other non-Federal funds for industrial R&D performance in the U.S. contracted to outside organizations and number of R&D-performing companies that contracted out performance of company-funded R&D, by industry and size of company: 1997–2000

Page 1 of 4

Industry and size of company	NAICS codes	1997		1998		1999 ¹		2000	
		Number of companies	Amount [In millions of dollars]	Number of companies	Amount [In millions of dollars]	Number of companies	Amount [In millions of dollars]	Number of companies	Amount [In millions of dollars]
Distribution by industry:									
All industries ²	21–23, 31–33, 42, 44–81	3,342	6,000	3,053	6,710	4,243	9,240	3,832	14,785
Manufacturing	31–33	--	--	--	--	1,720	4,080	1,716	4,794
Food.....	311	133	21	26	19	82	13	39	25
Beverage and tobacco products.....	312	1	(D)	1	(D)	1	(D)	1	(D)
Textiles, apparel, and leather.....	313–16	38	10	15	2	73	5	16	5
Wood products.....	321	6 (S)	7	1	(D)	6	(D)	7	(D)
Paper, printing and support activities.....	322, 323	13	(D)	33	10	6	(D)	15	(D)
Petroleum and coal products.....	324	21	(D)	51	21	2	(D)	13	(D)
Chemicals.....	325	110	1,886	176	2,181	167	2,386	52	2,783
Basic Chemicals.....	3251	9	8	57	16	16	(D)	10	(D)
Resin, synthetic rubber, fibers, and filament.....	3252	5	36	6	28	4	(D)	2	(D)
Pharmaceuticals and medicines.....	3254	72	1,798	67	1,861	14	2,274	14	2,658
Other chemicals.....	325 (minus 3251–52, 3254)	24	44	45	276	132	57	26	54
Plastics and rubber products.....	326	74	34	78	39	21	33	33	24
Nonmetallic mineral products.....	327	8	(D)	11	(D)	52	10	23	3
Primary metals.....	331	15	8	45	81	10	2	10	2
Fabricated metal products.....	332	145	59	149	13	49	10	105	21
Machinery.....	333	74	126	236	161	173	151	137	355
Computer and electronic products.....	334	260	326	164	319	104	101	181	168
Computers and peripheral equipment.....	3341	7	54	15	64	9	24	9	44
Communications equipment.....	3342	58	(D)	8	(D)	4	(D)	21	(D)
Semiconductor and other electronic components.....	3344	125	180	91	61	76	33	58	(D)

See explanatory information and SOURCE at end of table.

Table A-10. Company and other non-Federal funds for industrial R&D performance in the U.S. contracted to outside organizations and number of R&D-performing companies that contracted out performance of company-funded R&D, by industry and size of company: 1997–2000

Page 2 of 4

Industry and size of company	NAICS codes	1997		1998		1999 ¹		2000	
		Number of companies	Amount [In millions of dollars]	Number of companies	Amount [In millions of dollars]	Number of companies	Amount [In millions of dollars]	Number of companies	Amount [In millions of dollars]
Distribution by industry:									
Navigational, measuring, electromedical, and control instruments.....	3345	66	29	45	28	15	12	87	31
Other computer and electronic products.....	334 (minus 3341–42, 3344–45)	5	(D)	6	(D)	1	(D)	5	2
Electrical equipment, appliances, and components.....	335	68	7	11	3	42	(D)	50	84
Transportation equipment.....	336	69	792	18	919	64	812	31	771
Motor vehicles, trailers, and parts.....	3361–63	62	(D)	10	(D)	54	(D)	26	(D)
Aerospace products and parts.....	3364	6	(D)	7	148	4	80	3	(D)
Other transportation equipment.....	336 (minus 3361–64)	1	(D)	1	(D)	5	(D)	2	(D)
Furniture and related products.....	337	1	(D)	2	(D)	13	1	1	(D)
Miscellaneous manufacturing.....	339	62	43	50	15	56	18	103	34
Medical equipment and supplies.....	3391	58	42	17	14	25	8	44	27
Other miscellaneous manufacturing.....	339 (minus 3391)	4	1	33	1	31	10	59	7
Other manufacturing ³	31–33 (minus 311–16, 321–27, 331–37, 339)	2	(D)	3	(D)	--	--	--	--
Small manufacturing companies ⁴	Fewer than 50 employees	857	116	671	30	800	181	900	237
Nonmanufacturing	21–23, 42, 44–81	--	--	--	--	2,523	5,160	2,116	9,991
Mining, extraction, and support activities.....	21	8	16	5	(D)	4	6	4	(D)
Utilities.....	22	68	199	90	165	39	227	34	286
Construction.....	23	52	8	1	(D)	1	(D)	2	(D)
Trade.....	42, 44, 45	235	869	296	951	479	1,805	613	6,713
Transportation and warehousing.....	48, 49	103	70	8	10	12	8	58	54

See explanatory information and SOURCE at end of table.

Table A-10. Company and other non-Federal funds for industrial R&D performance in the U.S. contracted to outside organizations and number of R&D-performing companies that contracted out performance of company-funded R&D, by industry and size of company: 1997–2000

Page 3 of 4

Industry and size of company	NAICS codes	1997		1998		1999 ¹		2000	
		Number of companies	Amount [In millions of dollars]	Number of companies	Amount [In millions of dollars]	Number of companies	Amount [In millions of dollars]	Number of companies	Amount [In millions of dollars]
Distribution by industry:									
Information.....	51	199	295	139	336	165	504	225	597
Publishing.....	511	134	132	134	163	141	(D)	156	161
Newspaper, periodical, book, and database.....	5111	4	12	9	25	2	(D)	3	4
Software.....	5112	130	119	125	138	139	181	153	157
Broadcasting and telecommunications.....	513	52	(D)	4	(D)	10	(D)	4	(D)
Radio and television broadcasting.....	5131	0	0	0	0	0	0	0	0
Telecommunications.....	5133	52	(D)	4	(D)	3	(D)	4	(D)
Other broadcasting and telecommunications.....	513 (minus 5131, 5133)	0	0	0	0	7	0	0	0
Other information.....	51 (minus 511, 513)	13	(D)	1	(D)	15	69	66	(D)
Finance, insurance, and real estate.....	52, 53	130	183	125	305	66	328	38	765
Professional, scientific, and technical services.....	54	422	513	383	772	394	957	469	1,200
Architectural, engineering, and related services.....	5413	42	11	11	9	137	(D)	161	150
Computer systems design and related services.....	5415	116	44	179	77	79	51	84	119
Scientific R&D services.....	5417	158	431	171	646	174	832	164	907
Other professional, scientific, and technical services.....	54 (minus 5413, 5415, 5417)	106	26	22	41	4	(D)	60	24
Management of companies and enterprises.....	55	2	(D)	0	0	2	(D)	4	1
Health care services.....	621–23	5	(D)	7	(D)	3	(D)	56	12
Other nonmanufacturing ³	56, 61, 624, 71, 72, 81	110	8	18	38	108	6	4	2
Small nonmanufacturing companies ⁴	Fewer than 15 employees	51	18	240	13	1,250	1,112	609	334

See explanatory information and SOURCE at end of table.

Table A-10. **Company and other non-Federal funds for industrial R&D performance in the U.S. contracted to outside organizations and number of R&D-performing companies that contracted out performance of company-funded R&D, by industry and size of company: 1997–2000**

Page 4 of 4

Page 4 of 4

Industry and size of company	NAICS codes	1997		1998		1999 ¹		2000	
		Number of companies	Amount [In millions of dollars]	Number of companies	Amount [In millions of dollars]	Number of companies	Amount [In millions of dollars]	Number of companies	Amount [In millions of dollars]
Distribution by size of company: [Number of employees]									
Total.....	(na)	3,342	6,000	3,053	6,710	4,243	9,240	3,832	14,785
5 to 24.....	(na)	935	70	673	40	1,938	1,214	1,469	494
25 to 49.....	(na)	583	175	707	305	760	233	803	705
50 to 99.....	(na)	407	201	426	201	543	319	530	433
100 to 249.....	(na)	494	230	553	184	423	292	259	295
250 to 499.....	(na)	310	123	198	275	196	148	229	237
500 to 999.....	(na)	151	220	169	138	85	94	186	111
1,000 to 4,999.....	(na)	227	984	191	1,214	167	1,168	223	6,347
5,000 to 9,999.....	(na)	111	992	65	589	61	1,087	64	986
10,000 to 24,999.....	(na)	48	1,031	44	1,318	38	1,557	37	2,535
25,000 or more.....	(na)	75	1,974	27	2,446	33	3,128	32	2,642

¹ Some statistics for 1999 have been revised since originally published.

² The totals for "all industries" prior to 1999 are identical to corresponding totals previously published using the Standard Industrial Classification (SIC) system. Also, pre-1999 detail published using the North American Industry Classification System (NAICS) may not add to the totals. See the 'NOTES' below.

³ Manufacturing companies in the 1997 and 1998 samples that could not be classified with a NAICS code are included in "other manufacturing;" nonmanufacturing companies that could not be classified with a NAICS code are included in "other nonmanufacturing."

⁴ The frame from which the statistical sample was selected was divided into two partitions based on total company employment. In the manufacturing sector, companies with employment of 50 or more were included in the large company partition. In the nonmanufacturing sector, companies with employment of 15 or more were included in the large company partition. Companies in the respective sectors with employment below these values, but with at least 5 employees, were included in the small company partition. The purpose of partitioning the sample this way was to reduce the variability in industry estimates largely attributed to the random year-to-year selection of small companies by industry and the high sampling weights that sometimes were assigned to them. Because of this, detailed industry statistics were possible only from the large company partition; detailed industry statistics from the small company partition were not possible. Statistics from the small company partition are shown separately and are included in manufacturing, nonmanufacturing, and all industries totals. For more information, see "frame creation" and "sample selection" in the technical notes in Section B.

KEY: (D) = Data have been withheld to avoid disclosing operations of individual companies.

(S) = Indicates imputation of more than 50 percent.

(-) = Indicates data not collected.

(na) = Not applicable.

NOTES: Starting with the 1999 survey, estimates are based on the North American Industry Classification System (NAICS). In prior years, estimates were based on the Standard Industrial Classification (SIC) system. For this table, companies in the 1997 and 1998 surveys were assigned NAICS industry codes based on their SIC industry codes. Consequently, the estimates for 1997 and 1998 in this table are not necessarily representative of the NAICS categories of industries in those years. They are included for comparison purposes only.

The R&D in this table is the industrial R&D performed outside company facilities funded from all sources except the Federal Government. The funds predominantly are the company's own, but also include funds from outside organizations such as other companies, research institutions, universities and colleges, nonprofit organizations, and State governments. Excluded from this table is company-funded R&D not performed in the U.S. (e.g., R&D not performed on U.S. soil by foreign subsidiaries or other foreign organizations).

SOURCE: National Science Foundation/Division of Science Resources Statistics, Survey of Industrial Research and Development: 2000